

REMARKS

The rejection of claims 1-4, and 6-7 under 35 USC 112, second paragraph as failing to set forth the subject matter which applicants regard as their invention is respectfully traversed. ✓

Applicants disagree with the assertion of the Examiner that the invention requires the lens holder to have projections on both of its lateral sides and on a surface of the suspension holder. The specification does not require this. Accordingly, the rejection under 35 USC 112, second paragraph is improper. However, applicant has amended claim 1 to include a further limitation which reads as follows: ✓

- - with at least one of said plurality of said projections in addition to another projection which is provided on the lens holder being disposed in an arrangement side by side in parallel with the recording surface - - .

Applicant is clearly claiming at least one projection being provided on the lens holder. As is shown in Fig. 13, the second projections 37a and 37b are provided on the frame 15 instead of those on the lens holder 14 as in Fig. 4. In accordance with this teaching, each of the first projections 38a or 38b and a respective one of the second projections 37a or 37b are in an arrangement disposed side-by-side and in parallel with the recording surface. Accordingly, the rejection of claims 1-4 and 6-7 under 35 USC 112, should now be withdrawn.

The rejection of claims 2, 4 and 7 under 35 USC 102(b) as being anticipated by either Masunaga, Tomita et al ('661), Song, or the acknowledged prior art in Fig. 1 as depicted in US publication 2001-/0028628, supported by the priority document JP 2000-32507, is respectfully traversed.

To clearly distinguish claim 2 and its dependent claims from all of the cited prior art, claim 2 has been further amended to include the following additional limitation. ✓

- - with each of said first projections and a respective one of said second projections being disposed in an arrangement side by side and in parallel with the recording surface - - .

This additional feature is described in the specification with reference to Fig. 4 which shows the first projections 38a or 38b and a respective one of the second projections 37a or 37b, being disposed in an arrangement side by side and in parallel with the recording surface. This feature is not shown in any of the cited references and accordingly, the rejection under 35 USC 102(b) should be withdrawn.

More particularly, in all of the prior art cited by the Examiner, the first projections are separated from the recording surface farther than the second projection and there is no arrangement between a first projection and a respective one of the second projections being disposed in an arrangement side by side and in parallel with the recording surface. Thus, the present invention as claimed in claim 2, as amended, is clearly distinguishable from each of the cited references.

The rejection of claim 1 under 35 USC 103(a) as being unpatentable over the art cited in the rejection of claim 2 under 35 USC 102 is respectfully traversed.

As explained above, claim 1 has been amended to include an additional feature in which the projections 37a and 37b are provided on the frame 15 instead of those on the lens holder 14 as in Fig. 4. Based upon this newly claimed feature, each of the first projections 38a or 38b and a respective one of the second projections 37a or 37b are both disposed side-by-side and in parallel with the recording surface.

As explained above in connection with claim 2, none of the cited references show this arrangement between the first projections and a respective one of the second projections and therefore the claims are clearly patentable and non-obvious over the cited prior art under both 35 USC 102 and 35 USC 103.

Claim 3 stands rejected under 35 USC 103(a) as being obvious over the references cited in the rejection of claim 2 as well as claim 1, when further considered in connection with reference JP 62/031036. This rejection is respectfully traversed.

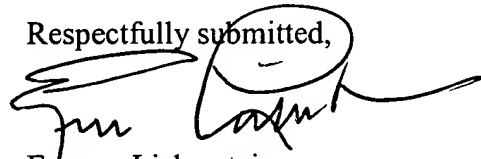
As explained above in connection with the rejection of claims 1 and 2, the relationship now claimed between at least one of the plurality of projections in addition to

another projection provided on the lens holder to form an arrangement with the projections disposed side by side in parallel with the recording surface is clearly not shown in any of the cited references. The additional reference JP 62/031036 does not teach this arrangement either. Accordingly, the rejection of claim 3 should be withdrawn.

Claim 5 has been objected to but is considered allowable if rewritten in independent form to include all of the limitations of the base claim upon which it depends. Accordingly, applicant has amended claim 5 as an independent claim in compliance with the Examiner's suggestion. Claim 5 is now believed allowable.

Reconsideration and allowance of claims 1-7 is respectfully solicited.

Respectfully submitted,



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MAILING CERTIFICATE

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Date: May 27, 2003

AMENDMENTS TO THE CLAIMS

1. (Amended) An optical pick-up device comprising:

a lens that focuses light onto a surface of a recording medium;

a lens holder that holds the lens;

a suspension holder that supports the lens holder disposed opposite a distal end of the lens holder;

a frame formed so as to be disposed opposite both lateral surfaces of the lens holder and the distal end of the lens holder, the frame supporting the suspension holder;

a plurality of elastic supports that movably support the lens holder, a distal end of the elastic supports mounted on the suspension holder and a proximal end retained by the lens holder; and

an actuator that drives the lens holder, the actuator including a focus coil, a tracking coil and at least one magnet,

wherein a plurality of projections are provided on at least one of the frame and the suspension holder, with the projections acting as stoppers that restrict rotation of the lens holder so as to prevent excessive deformation of the elastic supports with at least one of said plurality of projections in addition to another projection which is provided on the lens holder being disposed in an arrangement side by side in parallel with the recording surface. ✓

↑
side by side?

new
limitation ✓

2. (Amended) An optical pick-up device comprising:

a lens that focuses light onto a surface of a recording medium;

a lens holder that holds the lens;

a suspension holder that supports the lens holder disposed opposite a distal end of the lens holder;

a frame formed so as to be disposed opposite both lateral surfaces of the lens holder and the distal end of the lens holder, the frame supporting the suspension holder;

a plurality of elastic supports that movably support the lens holder, a distal end of the elastic supports mounted on the suspension holder and a proximal end retained by the lens holder;

an actuator that drives the lens holder, the actuator including a focus coil, a tracking coil and at least one magnet,

and a plurality of projections disposed on the lens holder including first and second projections wherein the first projections are located at both sides thereof, with the elastic supports fixed to the first projections and wherein the second projections are separated from the first projections a predetermined distance, such that the distance separating the second projections from the recording surface is smaller than the distance separating the first projections from the recording surface; [and]

each of said first projections and a respective one of said second projections being disposed in an arrangement side by side in parallel with the recording surface and;

wherein the second projections project a sufficient distance from the lens holder such that, even if the first projections come into contact with the frame and the lens holder rotates about a projection end of the first projections, the rotation will be controlled by the second projections so that the elastic support is prevented from being deformed physically.

*new limitation
must also prove
would lead
to the holder ✓*

5. (Amended) [The optical pick-up device as claimed in claim 2,] An optical pick-up device comprising:

a lens that focuses light onto a surface of a recording medium;

a lens holder that holds the lens;

a suspension holder that supports the lens holder disposed opposite a distal end of the lens holder;

a frame formed so as to be disposed opposite both lateral surfaces of the lens holder and the distal end of the lens holder, the frame supporting the suspension holder;

a plurality of elastic supports that movably support the lens holder, a distal end of the elastic supports mounted on the suspension holder and a proximal end retained by the lens holder;

an actuator that drives the lens holder, the actuator including a focus coil, a tracking coil and at least one magnet,

and a plurality of projections disposed on the lens holder including first and second projections wherein the first projections are located at both sides thereof, with the elastic supports fixed to the first projections and wherein the second projections are separated from the first projections a predetermined distance, such that the distance separating the second projections from the recording surface is smaller than the distance separating the first projections from the recording surface; and

wherein the plurality of projections is provided at least on the lateral surfaces of the lens holder toward the proximal end of the lens holder and on a surface of the suspension holder opposite the distal end of the lens holder.

39a,b